

# ATYPICAL ONSET GUILLAIN-BARRÉ SYNDROME ASSOCIATED WITH PRIMARY CMV INFECTION AND SEVERE NEUTROPENIA: FAVORABLE OUTCOME WITHOUT ANTIVIRAL THERAPY

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**Objectives.** Cytomegalovirus (CMV) infection is the second most frequent infectious trigger of Guillain-Barré Syndrome (GBS).<sup>1</sup> CMV-associated GBS (CMV+/GBS) typically affects young adults and is often characterized by prominent sensory loss, cranial nerve involvement and respiratory failure.<sup>1,2</sup> We report an atypical case of GBS presenting with brachial diplegia and gait ataxia, associated with asymptomatic primary CMV infection. The clinical course, despite being complicated by severe autonomic dysfunction and sustained neutropenia, resulted in complete recovery without the administration of antiviral treatment.

**Materials and methods.** A 31-year-old woman presented with proximal weakness of the upper limbs, dorsal spine pain, and gait instability, with symptom onset three days prior. Two weeks earlier, she reported asthenia and diffuse arthralgia without fever.

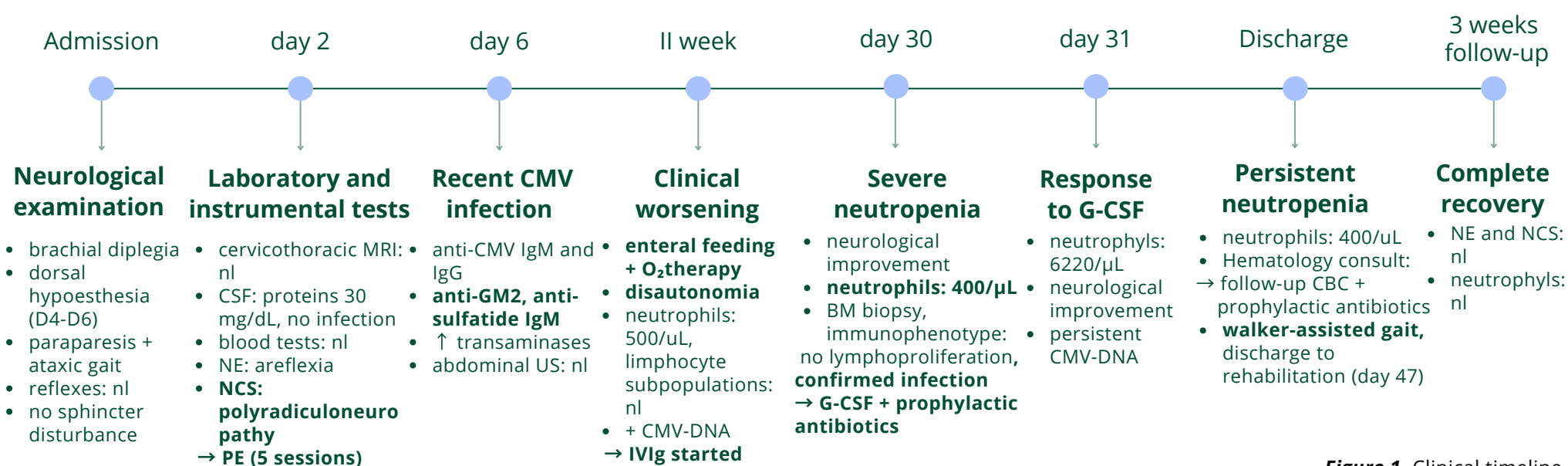


Figure 1. Clinical timeline

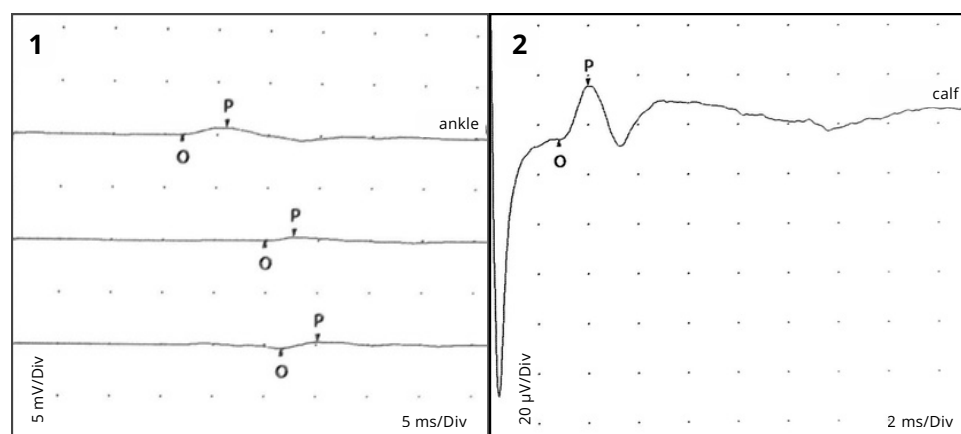


Figure 2. Left peroneal nerve CMAP (1) and right sural nerve SNAP (2)

**Discussion.** We describe a case of CMV-associated GBS with an unusual presentation and significant complications, including bulbar involvement, autonomic dysfunction, and profound neutropenia.<sup>1,2,3</sup> Despite persistent CMV viremia, antiviral therapy was contraindicated due to hematologic risk. The patient was treated with immunomodulatory therapy (plasma exchange followed by IVIg) and hematologic support, achieving full recovery.

**Conclusions.** In selected scenarios, absence of antiviral treatment does not preclude clinical improvement. It raises important considerations regarding the risk-benefit balance of antiviral therapy in CMV-associated GBS, especially in patients with hematologic vulnerability.

Nerve	Side	Site	Lat. (ms)	Amp. (mV)	Dist. (cm)	NCS (m/s)
Peroneal	Left	Ankle	16,6	0,7	30,5	37
		Below knee	24,8	0,3	10,5	58
		Above knee	26,6	0,7		
Peroneal	Right	Ankle	6,3	5,4	31,5	50
		Below knee	12,6	2,4	10	37
		Above knee	15,3	2,2		
Tibial	Left	Ankle	4,6	7,8	40	43
		Above knee	14	4,9		
Tibial	Right	Ankle	4,8	15,9	39	44
		Above knee	13,7	9,2		
Ulnar	Left	Wrist	2,3	8,1	21	66
		Below elb.	5,5	8,4	10	48
		Above elb.	7,6	7,1		

Table 1. Motor nerve condition

**References:** 1. Dourado Junior MET, Sousa BF, Costa NMCD, Jeronimo SMB. Cytomegalovirus infection in Guillain-Barré syndrome: a retrospective study in Brazil. Arq Neuropsiquiatr. 2021. 2. Van Doorn PA, Van den Bergh PYK, Hadden RDM, et al. European Academy of Neurology/Peripheral Nerve Society Guideline on diagnosis and treatment of Guillain-Barré syndrome. Eur J Neurol. 2023. 3. Mehdizadeh C, Mourkus A, Bannoud M, et al. Guillain-Barré Syndrome Presenting as Symmetrical Proximal Muscle Weakness: An Atypical Presentation. Cureus 15(12): e50259.



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